

What is claimed is:

1. A graphical user interface wherein a molecule function network with an arbitrary range is generated according to the designation by a user, and the molecule function network is displayed graphically.

2. A graphical user interface comprising a molecule network window that displays a molecule network included in the molecule function network and an information window that displays one or more information items selected from a group comprising molecules, molecule pairs, and bio-events included in the molecule function network, and characterized by that items related with each other in the molecule-network window and in the information window are operated interlinked with each other.

3. A graphical user interface characterized by that a molecule pair in the molecule-network window and information on the bio-event which occurs due to a quantitative and/or a qualitative fluctuation of the molecule pair or which causes a quantitative and/or a qualitative fluctuation of the molecule pair are displayed interlinked with each other, and that the displayed items are operated interlinked with each other.

4. A graphical user interface characterized by that a molecule in the molecule-network window and information on the bio-event which occurs due to a quantitative and/or a qualitative fluctuation of the molecule or which causes a quantitative and/or a qualitative fluctuation of the molecule are displayed interlinked with each other, and that the displayed items are operated interlinked with each other.

5. A graphical user interface characterized by that a molecule in the molecule-network window and information on the drug and/or physiologically active molecule which acts on the molecule are displayed interlinked with each other, and the displayed items are operated interlinked with each other.

6. A graphical user interface with a window to display a list of molecules in the molecule-network window, which is characterized by that the molecules in the molecule-network window and items in the list window are operated interlinked with each other.

7. A graphical user interface with a window to display a list of information items related to molecules and/or molecule pairs in the molecule-network window,

which is characterized by that the molecules and/or molecule pairs in the molecule-network and the items in the list window are operated interlinked with each other.

8. A graphical user interface with a window to display a list of biological pathways to which molecules and/or molecule pairs in the molecule-network window belong, which is characterized by that the molecules and/or molecule pairs in the molecule-network window and the items in the list window are operated interlinked with each other.

9. A graphical user interface with a window to display a list of information on bio-events related to molecules and/or molecule pairs in the molecule-network window, which is characterized by that the molecules and/or molecule pairs in the molecule-network window and the items in the list window are operated interlinked with each other.

10. A graphical user interface with a window to display a list of information on pathological events, which is characterized by that items related with each other in the list window are operated interlinked with each other.

11. The graphical user interface of claim 10 characterized by displaying the pathological events by category.

12. The graphical user interface of claim 11 comprising a list of information on quantitative and/or qualitative fluctuations of biomolecules related to the pathological events.

13. A graphical user interface characterized by that information on the molecule function network is searched by a keyword, and the item hit by the search is highlighted in the molecule network window and/or in the related list window.

14. A graphical user interface characterized by that one or more molecules and/or molecule pairs are selected in the molecule network window, and a molecule function network is generated and displayed by a connect search by designating the selected molecules and/or molecule pairs as search points.

15. A method of displaying a molecule function network, which is characterized by displaying molecules and/or molecule pairs differently with symbols and/or colors based on the information on the modification state and/or the activation state.

16. A method of displaying a molecule function network, which is

characterized by displaying molecules and/or molecule pairs differently with symbols and/or colors based on the information on the bio-events.

17. A method of displaying a molecule function network, which is characterized by displaying molecules and/or molecule pairs differently with symbols and/or colors based on the information on the biomolecules that are the target of actions of physiologically active molecules.

18. A method of displaying a molecule function network, which is characterized by displaying molecules and/or molecule pairs differently with symbols and/or colors based on the numeric information representing quantitative and/or qualitative states of the molecules and/or the molecule pairs.

19. A method of displaying a molecule function network, which is characterized by displaying edges connecting molecule pairs differently by different drawing methods based on the relation information of the molecule pairs.

20. A method displaying a molecule function network, which is characterized by that representation of a complex with two or more biomolecules can be switched between a single symbol for the complex and multiple symbols for respective molecules constituting the complex.

21. A method of displaying a molecule function network, which is characterized by that a bio-event related to a molecule and/or a molecule pair in the molecule network is displayed as an apex, and the molecule and/or molecule pair and the apex are connected with an edge.

22. A method of displaying a molecule function network, which is characterized by that a biologically active molecule which targets a molecule and/or a molecule pair in the molecule network is displayed as an apex, and the molecule and/or molecule pair and the apex are connected with an edge.

23. A method of displaying a molecule function network, which is characterized by that a biological pathway and/or another molecule network related to a molecule and/or a molecule pair in the molecule network is displayed as an apex, and the molecule and/or molecule pair and the apex are connected with an edge.

24. A display program of the molecule function network that executes the graphical user interface described in any one of the claims 1 to 14.

25. A display program of the molecule function network that executes the display method described in any one of the claims 15 to 23.

26. A computer-readable medium recording the program of claim 24 or 25.
27. A device for displaying a molecule function network whereupon the program of claim 24 or 25 can be executed.